



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/814,666

03/31/2004

Richard Francis Cormier

EMC04-05(04034)

5977

22468 7590 03/27/2008

CHAPIN & HUANG L.L.C.
WESTBOROUGH OFFICE PARK
1700 WEST PARK DRIVE
WESTBOROUGH, MA 01581

EXAMINER

WON, MICHAEL YOUNG

ART UNIT

PAPER NUMBER

2155

MAIL DATE

DELIVERY MODE

03/27/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/814,666	Applicant(s) CORMIER, RICHARD FRANCIS	
	Examiner MICHAEL Y. WON	Art Unit 2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 11, 14-21, 25 and 28-30 is/are rejected.
- 7) ☒ Claim(s) 8-10, 12, 13, 22-24, 26 and 27 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the amendment filed March 31, 2004.
2. Claims 1-30 have been examined and are pending with this action.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-7, 11, 14-21, 25, and 28-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Gerard et al. (US 6,023,704).

INDEPENDENT:

As per **claim 1**, Gerard teaches a method for processing client requests supporting a plurality of object models, the method comprising:

receiving a former client request requiring access to a former object defined by a former object model (see col.3, lines 50-52: "Each object is an identifiable, encapsulated piece of code and data that provides one or more services when requested by a client"; and col.4, lines 5-7: "The server object receives and interprets the message, and can then decide what operations to perform");

mapping a former object required for access by the former client request to a corresponding current object existing within a current object model (see col.2, lines 54-58: “swapping the identities of the first and second objects”; and col.7, lines 43-46: “instantiates a second object 127 as an instance of the second class that defines the desired new object configuration”);

copying current object data within the current object of the current object model to former object data within an instantiation of the former object (see col.2, lines 58-60: “and reading and converting the state data of the old object (now the second object) into the new object (now the first object)”); and col.8, line 3-13: “first object 126 has been transformed into a new configuration (as shown in FIG. 8) defined by the second class... “); and

processing the former client request using the instantiation of the former object to satisfy the former client request (see col.4, lines 5-7: “The server object receives and interprets the message, and can then decide what operations to perform”).

As per **claim 15**, Gerard teaches a computer system comprising: a memory (see col.5, lines 11 & 20-24); a processor (see col.5, line 10); a communications interface (see col.5, line 12); an interconnection mechanism coupling the memory, the processor and the communications interface (see col.5, lines 13-14); wherein the memory is encoded with a server application including an object adapter that when performed on the processor (see col.5, lines 20-24), is operable to process client requests supporting a plurality of object models by causing the computer system to perform the operations (see col.3, lines 65-67) of:

receiving, via the communications interface into the memory, a former client request requiring access to a former object defined by a former object model (see col.3, lines 50-52: “Each object is an identifiable, encapsulated piece of code and data that provides one or more services when requested by a client”; and col.4, lines 5-7: “The server object receives and interprets the message, and can then decide what operations to perform”);

mapping a former object required for access by the former client request to a corresponding current object existing within a current object model (see col.2, lines 54-58: “swapping the identities of the first and second objects”; and col.7, lines 43-46: “instantiates a second object 127 as an instance of the second class that defines the desired new object configuration”);

copying current object data within the current object of the current object model to former object data within an instantiation of the former object (see col.2, lines 58-60: “and reading and converting the state data of the old object (now the second object) into the new object (now the first object)”; and col.8, line 3-13: “first object 126 has been transformed into a new configuration (as shown in FIG. 8) defined by the second class... “); and

processing the former client request using the instantiation of the former object to satisfy the former client request (see col.4, lines 5-7: “The server object receives and interprets the message, and can then decide what operations to perform”).

As per **claim 29**, Gerard teaches a computer system comprising: a memory (see col.5, lines 11 & 20-24); a processor (see col.5, line 10); a communications interface

(see col.5, line 12); an interconnection mechanism coupling the memory, the processor and the communications interface (see col.5, lines 13-14); wherein the memory is encoded with a server application including an object adapter that when performed on the processor (see col.5, lines 20-24), provides a means for processing client requests supporting a plurality of object models (see col.3, lines 65-67), such means including:

means for receiving, via the communications interface into the memory, a former client request requiring access to a former object defined by a former object model (see col.3, lines 50-52: "Each object is an identifiable, encapsulated piece of code and data that provides one or more services when requested by a client"; and col.4, lines 5-7: "The server object receives and interprets the message, and can then decide what operations to perform");

means for mapping a former object required for access by the former client request to a corresponding current object existing within a current object model (see col.2, lines 54-58: "swapping the identities of the first and second objects"; and col.7, lines 43-46: "instantiates a second object 127 as an instance of the second class that defines the desired new object configuration");

means for copying current object data within the current object of the current object model to former object data within an instantiation of the former object (see col.2, lines 58-60: "and reading and converting the state data of the old object (now the second object) into the new object (now the first object)"; and col.8, line 3-13: "first object 126 has been transformed into a new configuration (as shown in FIG. 8) defined by the second class... "); and

means for processing the former client request using the instantiation of the former object to satisfy the former client request (see col.4, lines 5-7: "The server object receives and interprets the message, and can then decide what operations to perform").

As per **claim 30**, Gerard teaches a computer program product having a computer-readable medium including computer program logic encoded thereon that, when executed on a computer system (see col.5, lines 20-24), processes client requests supporting a plurality of object models by causing the computer system to perform the operations of:

receiving a former client request requiring access to a former object defined by a former object model (see col.3, lines 50-52: "Each object is an identifiable, encapsulated piece of code and data that provides one or more services when requested by a client"; and col.4, lines 5-7: "The server object receives and interprets the message, and can then decide what operations to perform");

mapping a former object required for access by the former client request to a corresponding current object existing within a current object model (see col.2, lines 54-58: "swapping the identities of the first and second objects"; and col.7, lines 43-46: "instantiates a second object 127 as an instance of the second class that defines the desired new object configuration");

copying current object data within the current object of the current object model to former object data within an instantiation of the former object (see col.2, lines 58-60: "and reading and converting the state data of the old object (now the second object) into the new object (now the first object)"; and col.8, line 3-13: "first object 126 has been

transformed into a new configuration (as shown in FIG. 8) defined by the second class... "); and

processing the former client request using the instantiation of the former object to satisfy the former client request (see col.4, lines 5-7: "The server object receives and interprets the message, and can then decide what operations to perform").

DEPENDENT:

As per **claims 2 and 16**, which respectively depend on claims 1 and 15, Gerard further teaches wherein receiving a former client request requiring access to a former object defined by a former object model comprises: exposing a former service interface for use by former clients for receipt of former client requests; receiving the former client request on the former service interface; and forwarding the former client request via the former service interface to an former client adapter for processing of the former client request (see col.3, line 65-col.4, line 7).

As per **claims 3 and 17**, which respectively depend on claims 2 and 16, Gerard further teaches wherein exposing a former service interface for use by former clients for receipt of former client requests comprises: providing a former remote method invocation interface for former clients to use to provide former client requests for processing (see col.3, line 65-col.4, line 7); and concurrently providing a current remote method invocation interface for current clients to use to provide current client requests for processing (see col.8, lines 3-13).

As per **claims 4 and 18**, which respectively depend on claims 2 and 16, Gerard further teaches wherein mapping a former object required for access by the former client request to a corresponding current object existing within a current object model comprises: obtaining an identity of the former object specified within the former client request (see col.74, lines 15-18); obtaining a former object definition from the identity of the former object within a former object model definition (see col.4, lines 18-20); and using the former object definition, instantiating the former object within a memory system (see col.4, lines 5-7).

As per **claims 5 and 19**, which respectively depend on claims 4 and 18, Gerard further teaches wherein: the former object and current object are defined in an object-oriented programming language (see col.3, lines 18-19); and wherein obtaining a former object definition comprises: using a reflection technique to identify, from a former object model definition file, the former object definition based on the identity of the former object specified within the former client request (see col.4, lines 3-5); and wherein instantiating the former object within a memory system comprises: using a former object class loader to load the former object definition, identified in the former object definition file, into the memory system as an instantiation of the former object (see col.4, lines 18-20).

As per **claims 6 and 20**, which respectively depend on claims 4 and 18, Gerard further teaches wherein mapping a former object required for access by the former client request to a corresponding current object existing within a current object model comprises: accessing object mapping entries in an object map to identify a current

object definition defined in a current object model that corresponds to the instantiated former object required for access by the former client request; and instantiating the current object based on the current object definition (see col.7, lines 43-46).

As per **claims 7 and 21**, which respectively depend on claims 6 and 20, Gerard further teaches wherein copying current object data within the current object of the current object model to former object data within an instantiation of the former object comprises: copying current object data values stored within current data fields of an instantiation of the current object to former data values within former data fields of an instantiation of the former object (see col.8, lines 3-15).

As per **claims 11 and 25**, which respectively depend on claims 1 and 15, Gerard further teaches wherein copying current object data within the current object of the current object model to former object data within an instantiation of the former object comprises: copying current object data values stored within current data fields of an instantiation of the current object to former data values within former data fields of an instantiation of the former object (see col.8, lines 3-15).

As per **claims 14 and 28**, which respectively depend on claims 1 and 15, Gerard further teaches wherein: the operations of receiving a former client request, mapping a former object to a corresponding current object, copying current object data within the current object to former object data within an instantiation of the former object and processing the former client request are performed within a current version of a storage area network management application (see col.7, lines 8-10); and wherein receiving a former client request comprises: receiving the former client request from a former

version of a storage area network management client application, the former client request containing a request for access to former storage area network management object data contained within former objects defined by a former object model that has been replaced by the current object model (see claim 4 rejection above); and wherein the steps of mapping, copying and processing the former client request allow the former version of the storage area network management client application to operate with the current version of the storage area network management application that maintains storage area network management data within current objects conforming to the current object model (see col.8, lines 3-16).

Allowable Subject Matter

4. Claims 8-10, 12, 13, 22-24, 26 and 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record does not disclose, teach, or suggest neither singly nor in combination the claimed limitation of "wherein copying current object data values stored within current data fields of an instantiation of the current object to former data fields within an instantiation of the former object comprises: identifying, for each current field in the current object that maps to a corresponding former field in the former object, if a field adapter exists for converting current field data in the instantiation of the current

Art Unit: 2155

object to former field data for use in the instantiation of the former object, and i) if an object adapter exists, operating the adapter to convert the current field data in the instantiation of the current object to former field data for use in the instantiation of the former object; and ii) if no object adapter exists, copying the current field data in the instantiation of the current object for use as former field data for use in the instantiation of the former object” as recited in claims 8, 12, 22, and 26.

Claims 9-10, 13, 23-24, and 27 respectively, depend on claims 8, 12, 22, and 26.

Conclusion

5. For the reason above, claims 1-7, 11, 14-21, 25, and 28-30 have been rejected, claims 8-10, 12, 13, 22-24, 26, and 27 have been objected, and claims 1-30 remain pending.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL Y. WON whose telephone number is (571)272-3993. The examiner can normally be reached on M-Th: 10AM-8PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on 571-272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2155

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael Won/

Primary Examiner

March 20, 2008